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TABLE OF CONTENTS

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ADDRESS	EDITORIALS
MEDICINE FROM THE LAY STANDPOINT: MOLIÈRE, SHAW, KIPLING. By Timothy Leary, M.D., Boston. 27	A VIGOROUS MEDICAL SEPTUAGENARIAN. 46 MEDICAL NOTES. 46
ORIGINAL ARTICLES	MISCELLANY
COMPULSORY REPORTING AND COMPULSORY TREATMENT OF VENEREAL DISEASES. By H. Henry Mason, M.D., Worcester, Mass. 34 THE TREATMENT OF ROUND SHOULDERS. By E. H. Bradford, M.D., Boston. 39 ALCOHOL AS A FACTOR IN THE PRODUCTION OF EPILEPSY AND ALLIED CONVULSIVE DISORDERS. By D. A. Thom, M.D., Palmer, Mass. 42	STATE DEPARTMENT OF HEALTH OF MASSACHUSETTS. 52 COMPETITIVE EXAMINATION FOR POSITIONS AS STATE DISTRICT HEALTH OFFICER AND MALE EPIDEMIOLOGIST IN THE SUB-DIVISION OF VENEREAL DISEASES OF THE MASSACHUSETTS STATE DEPARTMENT OF HEALTH. 52

Address.

MEDICINE FROM THE LAY STANDPOINT. MOLIÈRE: SHAW: KIPLING.*

By TIMOTHY LEARY, M.D., BOSTON.

"O wad some Pow'r the giftie gie us
To see ourselves as ithers see us."

Medicine, the mother of the natural sciences, had grown with the growth of human knowledge, and had retrogressed with its decadence into an affectation of learning, when Molière, with his genius for observation and his pitiless ridicule for shams, constituted himself the first great lay critic of the healing art.

Medicine had fallen on evil days. Science was just awakening from its long sleep of fourteen centuries. The written word contained all knowledge. The search for truth was pursued not by questioning natural phenomena directly, but by determining what the teachers taught on the subject. Investigation had been replaced by philosophical interpretation of what was written by the masters. The conditions which existed in medicine, then, were analogous to those which obtain in the law today. Common sense and fact and sometimes justice are compelled to give way to precedent and the author-

ity of the dead hand, while the world waits in breathless awe the momentous decision which shall determine the fate of a semi-colon.

The fame of the little great men of Molière's day rested on the composing of clysters, purges or emetics of unbelievable complexity, containing, oftentimes, scores of ingredients; on erudite dissertations of inflated verbosity acclaiming the authority of Galen, whose works had been the medical Bible since the second century, and condemning the new theory of the circulation of the blood, advanced by that medical heretic Harvey; on disputations, attributing to this or that remedy marvelous properties, with conclusions based, not on experience, but upon pedagogical phraseology and misapplied quotations from Hippocrates.

The charlatanism of Paracelsus, the founder of pharmacology, had transmitted itself to his followers, who held public debates on the virtues of their remedies. "The public had attended with amusement the discussions on the emetic wine, and had laughed at the factums launched by the faculties of Rouen and Marseilles against the apothecaries of these two cities. The comedy, so to speak, arranged itself. Molière had but to set the scene." The situation justified the verse of the time:

What are doctors made of?

* Address delivered to the Graduating Class, Tufts College Medical School, March 5, 1919.

An affected air pedantic,
With sputtered Greek and Latin,
A long perruque and grotesque robes
Fashioned of fur and satin."

That's what doctors are made of.

"Molière, who pursued without mercy the pedants of all classes and all shades, both the charlatans of learning and the charlatans of *virtu*, had only to choose his types."

In the consultation of Guenaut, Desfongerais, Brayer, and Valot, at the death bed of Mazarin, one of them insisted that the cardinal was suffering from disease of the liver; a second, that his mesentery was at fault; a third, that his spleen was the essentially diseased organ; the fourth, that it was the lungs which were responsible for his condition; and the dispute, as was the custom of the times, was aired before the public.

The picture of a consultation of four learned physicians, suggested by this incident, and presented in "L'Amour Medecin," satirizes the vain ceremonial and pretentious verbiage which dominated the activities of the profession. Monsieur Tomès is made to say: "A dead man is only a dead man, and of no consequence; but a neglected formality is a matter of serious moment to the whole corps of physicians." Substitute lawyers for physicians and the sentiment might have been uttered yesterday, particularly with reference to recent courts-martial.

The consultation deals with a young girl, who is pretending illness for the purpose of delaying a marriage, which her father had arranged against her wishes. In the report of the results of their conference to her father, the following is a rough translation of the dialogue. Maeroton speaking for the most part, in an affected drawl: "Monsieur, in matters of this character it is necessary to proceed with circumspection; to do nothing, so to speak, in a hurry; since the harm that can be done may be, according to our master Hippocrates, of dangerous consequence *experimentum periculosum* To come to the point, I find that your daughter has a chronic disease, which can endanger her life if she is not given aid, inasmuch as the symptoms which she has are indicative of a fuliginous and mordicant vapor, which is attacking the membranes of the brain. This vapor, which we call in Greek *atmos*, is caused by the tenacious and conglutinous putrid humors, which are contained in

the lower abdomen. And since these humors have been engendered over a long period of time, they have entered into combination, and have acquired this malignancy which is extending toward the region of the brain. So in order to remove, to detach, to pluck out, to expel, to evacuate the said humors, a vigorous purgation is necessary. But as a preliminary, I find it pertinent, and there are no disadvantages, to use some little anodine remedies, that is to say, some little remollient and detensive cleansing agents—some juleps and refreshing syrups which we will mix with her ptisan (barley-water). Afterwards we will come to the purgation and to the bleeding, which we will repeat, if necessary. We cannot promise, with all this, that your daughter will not die. But at least you will have done something, and you will have the consolation that she will have died according to the proper forms. It is better to die according to the rules than to recover in contravention of the rules."

As Dryden has said:

"Satire has always shone among the rest,
And is the boldest way, if not the best,
To tell men freely of their foulest faults,
To laugh at their vain deeds and vainer thoughts."

And yet the satire of Molière had little influence in changing the manners and methods of those he reprobated, probably because the whole world of learning, and not medicine alone, was tarred with the same stick, and stilted verbiage covered a morass of amazing misinformation.

The criticism of Molière was not constructive. The shafts of his ridicule could puncture the pompous pretensions of the doctors of the court, but he had nothing to offer in their stead. His was the negation of the agnostic. To quote Beralde—"The mainsprings of our being are mysteries, up to now, which the human mind cannot penetrate." To recover from illness, "it is requisite only to remain at rest. Nature, when we permit her, will withdraw herself gently from the disorder into which she has fallen. It is our restlessness, our impatience, which spoils everything."*

The purging of the profession of its affecta-

* Molière, suffering from tuberculosis of the lungs, died as the result of pulmonary hemorrhage following the fourth production of "La Malade Imaginaire," his most famous animadversion against medicine. It is an interesting thought that the toxins of the tubercle bacillus may have fed the fires of his genius, as they are thought to have stimulated the powers of Stevenson.

tions and pretensions came from within. Vesalius had revolted from the authority of Galen, and had had the temerity to teach anatomy from the open book of the dissected body: to describe things as they actually were, rather than as Galen said they should be. Harvey had discovered the circulation of blood, and his teachings were spreading, despite the anathemas of the defenders of constituted authority.

Aselli had described the lacteals: Malpighi had brought the microscope to the aid of the growing science, and had begun to lay bare the structure of the glandular organs, which Bellini, Steno, De Graaf, Peyer and Brunner were to further elucidate within a few years. Boerhaave was shortly to be born, and, with his illustrious pupil Haller, was to put on a scientific basis the study of the new physiology, which had emerged, modified by Van Helmont, Sylvius and the English School, from the alchemy of Paracelsus.

Morgagni was to establish the new branch of pathological anatomy, Hunter was to found experimental research, and Jenner was to institute specific prophylaxis. And so, through the following century to the time, little over a generation ago, when the work of Pasteur and Koch firmly grounded scientific medicine on a basis of specific etiology, and made it as exact a science as anything dealing with living things can be at the moment. With the substitution of the laboratory for the library, the last symbols of the charlatanism inherited from the time of Molière have disappeared, through the elimination of the chimney-pot hat, the frock coat and the gold headed cane as the necessary equipment of the doctor, and their replacement by the blood-pressure apparatus, the blood-counter and the culture tube.

If Molière were alive today he would have little to complain of in a profession whose watchwords are observation, experience and experiment.

Although we might escape the ridicule of a Molière, we have not progressed to the point where we can hope to evade the satire of a Shaw.

In characteristic vein, Shaw, in the preface to "The Doctor's Dilemma," wades through ninety-seven pages of diatribe against medicine as it is practiced, based on his familiar, philosophically defensible thesis, that "whatever is,

is wrong." Many of his conclusions are founded on half truths or near truths, and others on sturdy lying (the phrase is his), on prejudice (he is a super antivivisectionist) and on a misunderstanding of medical facts, not remarkable in even so brilliant a layman as Shaw. His strictures are based upon medical practice in England, but his criticisms are evidently intended to apply to medical practice at large. The plot of the play rotates about Sir A. E. Wright's opsonic theory and particularly his negative phase, which experienced workers in vaccine therapy have come to recognize as a negligible factor in most cases. As in many of the Shaw productions, the preface is more revealing than the play.

The philosophy of Shaw is that of a socialistic superman, who believes himself all-seeing and all-knowing, and who takes a bird's-eye view of humanity from an elevation, as a biologist might look down on a pen of guinea pigs; who has satisfied himself that these human animals show certain distinctive traits, which are so constant that he can formulate curves of their reactions under stress, as the physicist can plot the curves of flight of a moving body, if he knows the forces which are acting. From his superman's standpoint men are selfish, cruel, liars and fools; and since he is an extremist and delights in generalizations, all men are selfish, cruel, liars and fools. The words unselfishness, kindness, truth, honor and wisdom seem in some manner to have been excluded from his dictionary, or are defined in terms which twist and distort their meanings out of all semblance to our conception of them. Altruism does not exist for him; self interest is always the governing motive.

When he starts out with the announcement that "the medical service of the community, as at present provided for, is a murderous absurdity," one is inclined to take him seriously, and become indignant, until he suddenly leers up at one from the page, with his tongue in his cheek, and one is reminded that a most efficient means of attracting and holding a man's attention is to abuse him soundly. With reference to the doctors, he condescends to agree that, "Up to a certain point doctors, like carpenters and masons, must earn their living by doing the work that the public wants from them; and as it is not in the nature of things possible that such public want should be based on unmixed

disutility, it may be admitted that doctors have their uses, real as well as imaginary." This, like many of Shaw's lucubrations, reminds one of an ingenious philosopher of Molière's period, who has just discovered that two and two make four. And he continues, blandly ignoring the glorious record which led President Eliot to characterize the profession as thoroughly altruistic, beneficent and self-sacrificing: "But just as the best carpenter and mason will resist the introduction of a machine that is likely to throw him out of work, or the public technical education of unskilled laborer's sons to compete with him, so the doctor will resist with all his powers of persecution every advance of science which threatens his income." Therefore, . . . "it unluckily happens that the organization of private practitioners, which we call the medical profession, is coming more and more to represent, not science, but desperate and embittered antisience."

That the profession must favor dismemberment or evisceration is one of his conclusions, since we are paid for operations which dismember or eviscerate, and self interest should cause us to perform such operations unnecessarily. He discredits the nobility of our profession and the high character and honor of its members, because (*he accuses*) we practice cruelty in the search of knowledge and reassure the public in this respect "with lies of breath-bereaving brazenness." As for consciences, "Doctors are just like other Englishmen: most of them have no honor and no conscience: what they commonly mistake for these is sentimentality and an intense dread of doing anything that everybody else does not do, or omitting to do anything that anybody else does."

Over one-fourth of his argument deals with vivisection, and since he is a strict vegetarian and abhors sport, he unites the doctors with the antivivisectionists, "whose daily habits and fashionable amusements cause more suffering in a week, than all the vivisectioners of Europe do in a year," in a denunciation which exhausts the Shavian vocabulary. He would strain at a mouse and swallow a baby, as is evidenced in the eleventh of his health commandments: "In legislation and social organization, proceed on the principle that invalids, meaning persons who cannot keep themselves alive by their own activities, cannot, beyond reason, expect to be kept alive by the activities of others

The theory that every individual alive is of infinite value is legislatively impracticable . . . The man who costs more than he is worth, is doomed by sound hygiene as inexorably as by sound economics,"—a truly Spartan attitude toward man, but not to be adopted under any circumstances toward the sacred guinea-pig.

As the East Indian magician plants an actual seed in the sand, and makes one see growing from it a great tree, whose branches are lost in the clouds, so Shaw takes a kernel of truth and causes to appear a wordy upas tree of fiction, with just enough fact among the branches to make its semblance real to the uninitiate. Listen to him on "Bacteriology as a superstition." "Wise men used to take care to consult doctors qualified before 1860, who were usually contemptuous of or indifferent to the germ theory and bacteriological therapeutics, but now that these veterans have mostly retired or died, we are left in the hands of the generations, which, having heard of microbes, much as St. Thomas Aquinas heard of angels, suddenly concluded that the whole art of healing could be summed up in the formula: 'Find the microbe and kill it. And even that they do not know how to do. The simplest way to kill most microbes is to throw them into an open street or river and let the sun shine on them, which explains the fact that when great cities have recklessly thrown all their sewage into the open river the water has often been cleaner twenty miles below the city than thirty miles above it. But doctors instinctively avoid all facts that are reassuring, and eagerly swallow those that make it a marvel that anyone could possibly survive three days in an atmosphere consisting mainly of countless pathogenic germs. They conceive microbes as immortal until slain by a germicide administered by a duly qualified medical man. . . . In the first frenzy of microbe killing surgical instruments were dipped in carbolic oil, which was a great improvement on not dipping them in anything at all and simply using them dirty; but as microbes are so fond of carbolic oil that they swarm in it (*sic*), it was not a success from the anti-microbe point of view. . . . The popular theory of disease is the common medical theory: namely, that every disease had its microbe duly created in the Garden of Eden, and has been steadily propagating itself and producing widening circles of malignant disease ever since. It was plain from the

first that if this had been even approximately true, the whole human race would have been wiped out by the plague long ago, and that every epidemic, instead of fading out as mysteriously as it rushed in, would spread over the entire world. It was also evident that the characteristic microbe of a disease might be a symptom instead of a cause. . . . When Florence Nightingale said bluntly that if you overcrowded your soldiers in dirty quarters there would be an outbreak of smallpox among them, she was snubbed as an ignorant female who did not know that smallpox can be produced only by the importation of its specific microbe," and so on *ad-infinitum*. He is of course an antivaccinationist, and accuses us of "stealing credit from civilization," and claiming results for our specific prophylaxis which are due wholly to the modern trend toward cleanliness.

On the one hand, our trades unionism, by which he refers not to our organization of medical societies, but to what he terms the theory of our omniscience, our conspiracy to hide our shortcomings, and our advocacy of vaccination and like practices, purely because of their fee-producing possibilities; on the other hand our lack of organization, which leads to the employment of men of ability in special lines, to do general work in which they do not excel,—are subjects in which his faculty for exaggeration and his facility in piling up words are given full vent.

Our unfamiliarity with statistical methods meets his condemnation; what he calls our slavish subjection to public fashions in therapy he commiserates, and he sympathizes with our hardships: "A review of the counts in the indictment I have brought against private medical practice will show that they arise out of the doctor's position as a competitive private tradesman; that is out of his poverty and dependence. It should be borne in mind that doctors are expected to treat other people especially well, whilst themselves submitting to specially inconsiderate treatment. The butcher and baker are not expected to feed the hungry unless the hungry can pay; but a doctor who allows a fellow-creature to suffer or perish without aid is regarded as a monster. Then there is the disregard for his own health and comfort which results from the fact that he is, from the nature of his work, an emergency man We

think no more of the condition of a doctor attending a case than of the condition of a fireman at a fire. In other occupations night work is specially recognized and provided for But a doctor is expected to work day and night. To the strain of such inhuman conditions is added the constant risk of infection. One wonders why the impatient doctors do not become savage and unmanageable, and the patient ones imbecile."

As for our science: "Doctoring is an art and not a science; any layman who is interested in science sufficiently to take in one of the scientific journals and follow the scientific movement, knows more about it than those doctors (probably a large majority) who are not interested in it and practice only to earn their bread. Doctoring is not even the art of keeping people in health . . . it is the art of curing illnesses."

At last we have come to the nub of his discourse. Shaw, unlike Molière, has a panacea which will cure all of our disabilities, and remedy all of the ills of the body politic. And he tries to bribe the profession into acquiescence in his scheme for its betterment, by appealing to its self-interest through offers of relief from the hardships of practice, and adequate compensation for all from the public funds. "The social solution of the medical problem depends on that large, slowly advancing, pettishly resisted integration of society called generally Socialism. Until the medical profession becomes a body of men trained and paid by the country to keep the country in health, it will remain what it is at present: a conspiracy to exploit popular credulity and human suffering."

The natural inferences from Shaw's discussion of his "Public Health Service," which he contrasts with what he calls the "Private Illness Service" of today, are:

a. That the thought of disease as something necessary is a medical inheritance from the dark ages, and should be replaced by the view that all disease is preventable. And he intimates that if all the doctors were in the employ of his "Public Health Service" the ideal diseaseless state would be attainable immediately.

b. That prophylaxis is wholly a lay concept, which has had to be forced upon the unwilling anti-scientists of the medical profession.

With reference to the first theme, a, it may be said that the Utopian dream that all dis-

case is preventable has long been the speculation of the medical hygienist, but bitter experience has chastened his desire, and the limits of practical possibility have restricted his activities, even with the infectious diseases whose causation is known. The theory, which many hold, that robustness spells immunity to infectious disease, has been exploded for the *n*th time by the recent epidemic of influenza. To the literary dilettante in hygiene, who is still in the "bad smell" stage of disease causation, and who adopts a superior air when germs are mentioned, the solution of the disease prevention problem is easy. Scrubbing, whitewash, plumbing and drains are all that are necessary. We have come to learn, however, that the problem is not as simple as it seems to the casual observer.

Cleanliness, disinfection, sewerage and drainage are valuable means of preventing the gross contamination of our water and food supplies, and of destroying insect carriers, but the real difficulties of present day prophylaxis revolve about the question of the human carrier of disease germs, who is usually not sick, and is often discovered only after exhaustive search. For every recognizable case of infectious disease there are several "healthy" carriers. Even after we have discovered the carrier, we are puzzled as to what to do with him. Our problem is to keep the infectious material from the carrier out of the mouths of susceptibles. If we were to attempt to isolate every carrier of disease germs capable of producing infection on transfer to others, we should have a large part of the human race under quarantine. So close is the union, the symbiosis, of the germ with the human being in the case of the carrier, that the destruction of the bacterium, without injury to his human host, is a problem which often resists our every effort. We can require the carrier to find employment where he does not have to handle food, and we can ask him to take precautions about contaminating others, but in most cases we are compelled to depend upon his good faith in carrying out our orders.

If our difficulties are so great in dealing with diseases of known external infectious causation, how are we going to eliminate off hand the diseases of unknown internal causation? I am afraid that the medical schools must continue to teach, and the profession to practice therapy, in spite of Shaw's piratical suggestion that we let

the sick walk the plank, and focus all attention on the well. In the culture of food animals, the Shavian policy is carried out almost to the letter. Free living creatures, which are not subjected to the confinement and the intimate and varied contacts of the human environment, are rigidly selected in breeding—for brawn and not for brains. No animal is permitted to live long enough to encounter the disease processes of old age. The weaklings and the seriously diseased are ruthlessly destroyed, since "sound economics" is the governing factor, and all "sentimental" considerations are waived. And yet, notwithstanding the activities of agricultural departments and bureaus of animal industry, diseases of domestic animals, though checked, continue to flourish. Furthermore, although economic limitations control the amount of treatment which can be afforded, veterinary therapy is still practiced.

The second thesis, *b*, is too absurd to require much discussion. To the public which knows that it was medical prophylaxis which made possible the construction of the Panama Canal; which eliminated typhoid and dysentery as army scourges; which, by delousing men, removed the possibility of typhus as an added war horror; which is regenerating the South and the tropics by destroying the hookworm—to mention only a few notable instances—such claims must appear to be what they are—ridiculous. Modern "doctoring" is not only the "art of curing illnesses;" it is also the science of "keeping people in health."

Socialism may be the solution of the problems in the factitious medical world, which Shaw has taken so great pains and so many phrases to construct, but whether this is equally true in the actual medical world must remain a subject for discussion. One hates to believe that the splendid altruism, which is the crown of glory of the medical profession, and its resultant urge to enthusiastic effort for the public good, must give way to the sordid self-interest of the sort of socialism which Shaw sanctifies.

And now it is a pleasure to turn from the artifice and prolixity of Molière's doctors and of Shaw to the simpler diction and kindly enthusiasm of Kipling.

Rudyard Kipling, in an address to the students at Middlesex Hospital, said several years ago: "It may not have escaped your professional

observation that there are only two classes of mankind in the world—doctors and patients. I have had some delicacy in confessing that I have belonged to the patient class ever since a doctor told me all patients were phenomenal liars where their own symptoms were concerned.

Speaking as a patient, I should say that the average patient looks upon the average doctor very much as the noncombatant looks upon the troops fighting on his behalf. The more trained men there are between his body and the enemy, he thinks, the better.

"I have had the good fortune this afternoon of meeting a number of trained men who in due time will be drafted in the permanently mobilized army which is always in action, always under fire, against death. Of course, it is a little unfortunate that Death, as the senior practitioner, is bound to win in the long run, but we non-combatants, we patients, console ourselves with the idea that it will be your business to make the best terms you can with Death on our behalf; to see how his attacks can be longest delayed or diverted, and when he insists on driving the attack home, to see that he does it according to the rules of civilized warfare."

"Every sane human being is agreed that this long drawn fight for time that we call life is one of the most important things in the world. It follows, therefore, that you, who control and oversee this fight, and who will reinforce it, must be among the most important people in the world.

"Certainly the world will treat you on that basis. It has long ago decided that you have no working hours that anybody is bound to respect, and nothing except your extreme bodily illness will excuse you in its eyes for refusing to help a man who thinks he may need your help, at any hour of the day or night.

"Nobody will care whether you are in your bed, or in your bath, or on your holiday, or at the theatre—if any one of the children of men has a pain or a hurt in him you will be summoned. And, as you know, what little vitality you may have accumulated in your leisure will be dragged out of you again.

"In all times of flood, fire, famine, plague, pestilence, battle, murder, and sudden death it will be required of you that you report for duty at once, that you go on duty at once, and that you stay on duty until your strength fails you or your conscience relieves

you, whichever may be the longer period. This is your position. These are some of your obligations, and I do not think that they will grow any lighter.

"Have you heard of any legislation to limit your output? Have you heard of any bill for an eight hour day for doctors? Do you know of any change in public opinion which will allow you not to attend a patient when you know that the man never means to pay you?

"Have you heard any outcry against those people who can really afford surgical appliances and yet cadge around the hospitals for free advice, a cork leg or a glass eye? I am afraid you have not.

It seems to be required of you that you must save others. It is nowhere laid down that you need save yourselves. That is to say, you belong to the privileged classes.

"May I remind you of some of your privileges. You and kings are about the only people whose explanation the police will accept if you exceed the legal limit in your car. On presentation of your visiting card you can pass thru the most turbulent crowd unmolested and even with applause.

"If you fly a yellow flag over a center of population you can turn it into a desert. If you choose to fly a Red Cross flag over a desert, you can turn it into a centre of population toward which, as I have seen, men will crawl on hands and knees.

"You can forbid any ship to enter any port in the world. If you think it necessary to the success of any operation in which you are interested you can stop a 20,000 ton liner with mails in midocean till the operation is concluded. You can tie up the traffic of a port without notice given. You can order whole quarters of a city to be pulled down or burnt up, and you can trust on the warm coöperation of the nearest troops to see that your prescriptions are properly carried out.

"To do your poor patients justice, we do not often dispute doctors' orders unless we are frightened or upset by a long continuance of epidemic diseases. In this case, if we are uncivilized, we say that you have poisoned the drinking water for your own purpose, and we turn out and throw stones at you in the street. If we are civilized we do something else, but a civilized people can throw stones, too.

"You have been and always will be exposed

to the contempt of the gifted amateur—the gentleman who knows by intuition everything that it has taken you years to learn. You have been exposed, you always will be exposed, to the attacks of those persons who consider their own undisciplined emotions more important than the world's most bitter agonies, the people who would limit and cripple and hamper research, because they fear research may be accompanied by a little pain and suffering.

"You will find that such people have been with you—or, rather, against you—from the very beginning, ever since, I should say, the earliest Egyptians erected images in honor of cats—and dogs—on the banks of the Nile. Yet your work goes on, and will go on.

"You remain now, perhaps, the only class that dares to tell the world that we can get no more out of a machine than we put into it; that if the fathers have eaten forbidden fruit, the children's teeth are very liable to be afflicted. Your training shows you that things are what they are, and will be what they will be and that we deceive no one except ourselves when we pretend otherwise.

"Better still, you can prove what you have learned. If a patient choose to disregard your warnings, you have not to wait a generation to convince him. You know you will be called in in a few days, or weeks, and you will find your careless friend with a pain in his inside or a sore place on his body, precisely as you warned him would be the case.

"Have you ever considered what a tremendous privilege that is? At a time when few things are called by their right names—when it is against the spirit of the times even to hint that an act may entail consequences—you are going to join a profession in which you will be paid for telling men the truth, and every departure you may make from the truth you will make as a concession to man's bodily weakness and not mental weakness.

"Realizing these things, I do not think I need stretch your patience by talking to you about the high ideals and the lofty ethics of a profession which exacts from its followers the largest responsibility and the highest death rate—for its practitioners—of any profession in the world. If you will let me, I will wish you in your future what all men desire—enough work to do and strength enough to do the work."

Medicine has outgrown the defects which Molière found in the practice of his day, leaving on the shoulders of the law the discarded cloak of pretension, technicality, verbosity and ancestor worship, which furnished the satirical pen of the master with its material for ridicule. Although lacking much of perfection, the practice of today is not guilty of most of the faults which Shaw's position as a propagandist of Socialism, and his naturally distorted vision caused him to find in it. May we continue to grow, not along the narrow lane of selfishness, which Shaw has laid down as the only path to progress, but through the broad road of altruism, with sentiment as a useful stimulant, and rigid scientific oversight as a salutary check, to a future which may be worthy of the encomiums of the Kiplings of all time.

Original Articles.

COMPULSORY REPORTING AND COMPULSORY TREATMENT OF VENEREAL DISEASES.*

BY B. HENRY MASON, M.D., WORCESTER, MASS.

THE history of venereal disease is written in the earliest records of man; especially do we find definite statements in the Bible, in Leviticus, Chapter XV. With the discovery of the specific cause of gonorrhea by Neisser in 1879, and of syphilis by Schaudin in 1905, it became known that venereal diseases are infectious, communicable diseases. Notwithstanding this fact, however, until recently very little has been done to institute prophylactic measures or to insure efficient treatment; and even with the attention this class of disease has received and the efforts made to control it since our nation joined the Allies in the world conflict, very little in the way of prevention has actually been accomplished.

It is the duty of every well living citizen, but more especially the politicians, lawyers, and physicians, to make a strenuous effort to keep venereal disease among the civilian population under control, not because of the bearing it has on society alone, but to maintain maximum in-

* Read at a meeting of the Worcester District Medical Society at the Worcester State Hospital, Worcester, Mass., April 16, 1919.

dustrial efficiency and conserve the man power of the nation.

The importance of venereal disease to the community from a scientific viewpoint rests chiefly upon these factors.

1. Its transmissibility by sexual intercourse.

2. Its rebelliousness to treatment.

3. Its chronicity and latency which deceive the patient and even the physician.

4. The number of persons rendered permanently disabled and public charges by reason of resulting mental disease.

Keyes, in speaking of the social importance of gonorrhea, says: "A disease that attacks more than half our young men, a disease that affects thousands of children and hundreds of thousands of women is important to society by its prevalence alone. A disease that enters the family almost exclusively through illicit sexual contact, a disease that may be transmitted long after the patient thinks himself or herself well, a disease that may be transmitted to the wife from the prostitute via the offending husband, a disease that may be passed from the wife thus innocently infected to the eyes of her infant at birth or to its genitals thereafter, is eminently important to society. A disease that incommodes the man and may invalid the woman, a disease that unsexes thousands of women, that makes chronic invalids of many, that kills not a few; a disease that in this country causes one-half of the congenital blindness, that is accountable for about one-third of the blind in our asylums, is a peril to society; a disease that causes fully fifty per cent. of the involuntarily sterile, or child sterile marriages, that destroys the power of procreation in man as well as in woman, is indeed a peril to the race."

Much that has been said about gonorrhea might also be repeated when speaking of syphilis, and with these additions:

It is transmissible by heredity. It is frequently contracted by innocent persons with strict morals by reason of carelessness on the part of certain individuals suffering with the disease. It is directly responsible for many cases of mental breakdown; and it is often the cause of mental deficiency in children.

That eminent French specialist, Ricard, when asked about the chronicity of gonorrhea, replied, "A gonorrhea begins and God only

knows when it will end," and the aphorism is as true today as the day it was uttered. Someone has stated in regard to syphilis: "Once a syphilitic always a syphilitic, and on the Judgment Day he will be a syphilitic ghost." Such statements coming from men of international note should forcibly arouse in our minds the question of control and teach us that venereal diseases are a scourge which menaces the industrial efficiency of the nation.

The prevalence of prostitution and sexual promiscuity in our cities make venereal diseases endemic among their population; smaller towns suffer in proportion to the laxity of their morals and their proximity to urban centers. Marrow has estimated that sixty per cent., and Forseheimer that fifty-one per cent. of the male population of the United States have gonorrhea. He adds: "Twenty per cent. of these young men will become infected before their twenty-first year, over sixty per cent. before their twenty-fifth year, and more than eighty per cent. before they pass their thirtieth year."

From the Weekly Bulletin, Department of Health, New York City, August 31, we note that about forty per cent. or approximately six hundred women examined at the night court within the last three months have given positive Wassermann reactions, and about twelve per cent. have given positive gonorrhea complement fixation tests. Various authors estimate that from fifty-five to eighty-seven per cent. of prostitutes are infected with one or more venereal diseases.

It is reported from the Surgeon-General's office that from the time the United States entered the war in April, 1917, to September, 1918, the loss to the army from venereal diseases represented 2,295,000 days of service. With this fact in mind let us stop and think how prevalent gonorrhea is among our young adult male population, for we are also informed that about eighty-five per cent. of all cases of venereal diseases treated in our army during the past year were contracted by the men in civilian life before they entered the military service. We learn from the same source that "prostitution in the United States has resulted in the infection (directly or indirectly) with syphilis of almost a half million men in what is virtually our reserve army;" that "venereal diseases present the most serious communicable disease problem of the war." We are further

confronted by the fact that in the army the number of cases of venereal diseases contracted before and after enlistment was in the ratio of five to one. This shows the great prevalence of this scourge in civil life and that by a system of education, healthy recreation, repression of prostitution, isolation and treatment, which would be entirely applicable to civil communities, the venereal rate has been cut down.

Let us for a moment consider this problem from the mental hygiene point of view.

It has been estimated, and very conservatively, that five per cent. of all people who contract syphilis at some later time develop general paralysis of the insane. Definite figures under present conditions would be hard to get relative to the prevalence of syphilis among the adult population, but eight per cent. appears to be a fairly low estimate. Blood examinations of all patients admitted to our state hospitals show that from twelve to eighteen per cent. give a positive reaction. Of 1698 temporary care cases admitted to the psychopathic department of the Boston State Hospital, 8.4 per cent., over 135, were suffering from a mental disease due to syphilis. As the average cost per week to care for our insane is, at the present time, approximately \$6.50 per patient, the cost to the State for the care and treatment of these 135 syphilitics for one year would be \$45,510. And syphilis as well as gonorrhea is a preventable disease.

The Federal Government took action early in July, 1918, to assist the states in the control of venereal disease by the passage of the Chamberlain-Kahn Bill as a section of the Army Appropriation Bill. Representative Kahn struck forcibly and without fear of criticism at the very heart of the true status of conditions relative to the control of venereal disease when he said: "It well behooves the Government to coöperate with the States in stamping out this curse of the human race. Cases of smallpox, bubonic plague, diphtheria, and scarlet fever must be reported to the local health authorities immediately, and the country, the states, and the municipalities seek to regulate and prevent the spread of those diseases; but through prudery and mawkish sentimentality we have closed our eyes to the serious conditions that exist in our country by reason of venereal diseases."

The following is a summary of the act as it appears in the Army Appropriation Bill:

Section One creates an Interdepartmental Social Hygiene Board to consist of the Secretary of War, the Secretary of the Navy, the Secretary of the Treasury, and the Surgeons-General of the Army, Navy, and Public Health Service; or of representatives designated by the respective secretaries; the duties of said board to be:

1. To recommend rules for expenditure of \$1,000,000 allotted to the states for the purposes authorized under Section Two of this Chapter.
2. To select the institution and fix allotments under Section Six.
3. To recommend such general measures as may seem necessary to carry out efficiently the purposes of this Chapter.
4. To direct the expenditures of the sum of \$100,000 referred to in Section Seven.

Section Two authorizes the Secretary of War and the Secretary of the Navy to adopt measures assisting the states in caring for diseased persons (in detention homes) in order to protect from venereal infection soldiers and sailors of the United States.

Section Three establishes in the Bureau of the Public Health Service a division of venereal diseases.

Section Four provides that the duties of the Division of Venereal Diseases be:

1. To study and investigate the cause, treatment, and prevention of venereal diseases.
2. To coöperate with State Departments of Health for the prevention and control of such diseases within the states; and
3. To control and prevent the spread of these diseases in interstate traffic.

Section Five appropriates \$1,000,000 to be expended in carrying out the provisions of Section Two.

Section Six appropriates \$1,000,000 annually for two years to be allotted to the states on the basis of population for the use of their departments of health in the prevention, control, and treatment of venereal diseases, the payment to each state for the fiscal year beginning July 1, 1919, conditioned on the states raising an equal amount; but payment for the fiscal year beginning July 1st, 1918, to be without such condition. It further appropriates \$100,000 annually for two years to be paid to

suitable institutions for scientific research for the purpose of discovering more effective medical measures in the prevention and treatment of venereal diseases. It further appropriates \$300,000 annually for two years to be paid to institutions qualified for scientific research for the purpose of discovering and developing more effective educational measures in the prevention of venereal diseases, and for the purpose of sociological and psychological research related thereto.

Section Seven appropriates \$200,000 to defray the expense of establishing and maintaining the Division of Venereal Diseases; and appropriates \$100,000 to be used under the direction of the Interdepartmental Social Hygiene Board for any purpose for which any of the appropriations made by this Chapter are available.

Section Eight provides that the terms "State" and "States" used in this Chapter include the District of Columbia.

The Commonwealth of Massachusetts received \$36,603.94 as its allotment under this Act and the State Board of Health took timely and efficient action so far as lay within its power by adopting the following Special Regulations relative to reporting venereal disease:

Special Regulations governing the reporting of these diseases are given herewith. Note carefully that all reports of gonorrhea and syphilis are to be made direct to the State Department of Health, State House, Boston, and not to local boards of health, as is the case of all other diseases dangerous to the public health.

The State Department of Health, at a meeting held December 18, 1917, *Voted*, that the list of diseases declared dangerous to the public health is further amended by adding gonorrhea and syphilis, so that the said list now reads as follows:

Actinomycosis	Infectious diseases of the
Anterior poliomyelitis	eye:
Anthrax	a. Ophthalmia neo.
Asiatic cholera	b. Sup. conjunctivitis
Chicken-pox	c. Trachoma
Diphtheria	Leprosy
Dog-bite (requiring anti-rabic treatment)	Malaria
Dysentery:	Measles
a. Amebic	Mumps
b. Bacillary	Pellagra
Epidemic cerebrospinal meningitis	Plague
German measles	Pneumonia (lobar only)
Glanders	Rabies
Hookworm disease	Scarlet fever
	Septic sore throat
	Smallpox

Tetanus
Trichinosis
Tuberculosis (all forms)
Typhoid fever

Typhus fever
Whooping cough
Yellow fever

Reportable to local boards of health in accordance with the provisions of Sections 49 and 50, Chapter 75, Revised Laws,

and
Gonorrhea
Syphilis

REGULATIONS GOVERNING THE REPORTING OF GONORRHEA AND SYPHILIS.

1. Gonorrhea and syphilis are declared diseases dangerous to the public health and shall be reported in the manner provided by these regulations promulgated under the authority of Chapter 670, Laws of 1913.

2. Gonorrhea and syphilis are to be reported (in the manner provided by these regulations) on and after February 1, 1918.

3. At the time of the first visit or consultation the physician shall furnish to each person examined or treated by him a numbered circular of information and advice concerning the disease in question, furnished by the State Department of Health for that purpose.

4. The physician shall at the same time fill out the numbered report blank attached to the circular of advice, and forthwith mail the same to the State Department of Health. On this blank he shall report the following facts:

Name of the disease
Age
Sex
Color
Marital condition and occupation of the patient.
Previous duration of disease and degree of infectiousness

THE REPORT SHALL NOT CONTAIN NAME OR ADDRESS OF PATIENT.

5. Whenever a person suffering from gonorrhea or syphilis in an infective stage applies to a physician for advice or treatment, the physician shall ascertain from the person in question whether or not such person has previously consulted with or been treated by another physician within the Commonwealth and has received a numbered circular of advice. If not, the physician shall give and explain to the patient a numbered circular of advice and shall report the case to the State Department of Health, as provided in the previous regulation.

If the patient has consulted with or been treated by another physician within the Commonwealth and has received the numbered cir-

cular of advice, the physician last consulted shall not report the case to the State Department of Health, but shall ask the patient to give him the name and address of the physician last previously treating said patient.

6. In case the person seeking treatment for gonorrhea or syphilis gives the name and address of the physician last previously consulted, the physician then being consulted shall notify immediately by mail the physician last previously consulted of the patient's change of medical adviser.*

7. Whenever any person suffering from gonorrhea or syphilis in an infective stage shall fail to return to the physician treating such person for a period of six weeks later than the time last appointed by the physician for such consultation or treatment, and the physician also fails to receive a notification of change of medical advisers as provided in the previous section, the physician shall then notify the State Department of Health, giving name, address of patient, name of disease, and serial number, date of report, and name of physician originally reporting the case by said serial number, if known.

8. Upon receipt of a report giving name and address of a person suffering from gonorrhea or syphilis in an infective stage, as provided in the previous section, the State Department of Health will report name and address of the person as a person suffering from a disease dangerous to the public health and presumably not under proper medical advice and care sufficient to protect others from infection, to the board of health of the city or town of patient's residence or last known address. The State Department of Health will not divulge the name of the physician making said report.

Since the adoption of the above regulations new ones have from time to time gone into effect.

We learn that after these regulations had been in operation eleven months, 10,966 cases of venereal disease had been reported to the State Department of Health. This probably represents about 25% of the total number of

persons suffering from venereal diseases in the State.

Of this number 1,366 were found not to be faithfully following up treatment and, in accordance with the regulations, were after a certain period of time reported by name. Action by the Health Department returned 995 to treatment but there remained 341 who could not be located. Although I do not know the type of personality represented in this group, it is but fair to assume they are so far down the moral scale of life that they continued their lascivious habits uncontrolled, spreading infection broadcast. The State Board has also established several clinics throughout the State, makes laboratory examinations, and is now able to furnish arsphenamine free to physicians and hospitals.

If the control of venereal diseases is a problem which will require radicalism, is it not far better for us to adopt radical measures at once, without false modesty, than to exhibit a state of inertia while this scourge which is directly and indirectly responsible for so much sickness, misery, and general inefficiency sweeps on unabated? Successfully to obtain desired results, we must first have legislation; laws must be placed on the statute books with teeth to them, in order that those who will not voluntarily continue treatment and conduct themselves as instructed may be apprehended and treated. In order to stimulate the establishment of proper legal authority to enable the State and local boards of health, physicians and various social organizations to drive this scourge from the Commonwealth, the following suggestions are submitted for your consideration:

Early diagnosis and treatment are imperative.

For study of legislative programs that have already been enacted outside of the United States relative to the venereal disease problem, those of England, Western Australia, and Germany are of special interest; also the Suggestions for State Board of Health Regulations for the Prevention of Venereal Diseases as printed in U. S. Public Health Reports, Volume 33, No. 13, March 29, 1918, pp. 435-439.

Compulsory reporting is necessary, for if the extent of a contagion is not known its control cannot be regulated.

Compulsory treatment is necessary for the successful handling of all cases where the

* In asking physicians to carry out the provisions of this section, the State Department of Health appreciates that it is asking more than is authorized by the authority of Chapter 670, Laws of 1913. This courtesy is requested, however, in the interest of the public health to protect the individual who has conformed with the regulations laid down for him.

moral tone or intellectual fibre is so poor that they cannot be trusted to carry out instructions.

There should be a law making all records private.

A health certificate from the local health board showing a negative Wassermann should be filed with the clerk before a marriage license could be granted.

Hospital facilities provided which would be available for the whole community. This could be done with little expense to the State by the passage of a law requiring all general hospitals to provide a ward for the care and treatment of venereal diseases; and the establishment of a camp for girls at the Sherborn State Reformatory.

At the present time, excepting two or three institutions in the State, if a person is suffering with a venereal disease he is barred from admission to a general hospital for treatment.

Custodial care for the feeble-minded, especially the feeble-minded prostitute, is important for persons of a physical adult age, but a mental age of a child, diseased, and with no moral fibre in their make-up, who, if allowed to remain in a community will not only return to their old haunts but in many cases beget degenerates to be cared for at the expense of the State.

Those able should be required to pay for the treatment.

Physicians as well as others who fail to comply with the laws, rules, and regulations established should be liable to penalty.

We recognize that in order to have any law successful we must receive the support and co-operation of the people. This would be readily given, I believe, by almost all well living citizens; and further strengthened by a campaign of enlightenment and education of the general public by speakers, motion pictures, posters and such other means as might be outlined by the State Board of Health.

As a means to an end sex education should be taught in our high schools and academies, not as a separate course but in conjunction with courses in botany, biology, physiology, and hygiene, so that all students would receive some knowledge first-hand of the dangers and risks of immorality.

THE TREATMENT OF ROUND SHOULDERS.*

By E. H. BRADFORD, M.D., BOSTON.

A SPECIALTY owes to the general profession the gift of added knowledge from increased opportunities of generalization and investigation on special subjects.

The orthopedic surgeon should give the results of his experience to the practitioner in a plain statement of the proper management of cases of the common deformity called round shoulders, seen frequently in growing children.

The distortion popularly known as "round shoulders," "stoop shoulders," a form of curvature of the spine, as a chronic affection, comes under the direction and care of orthopedic specialists or surgeons who have given some attention to this special branch of surgery who are cognizant of the causes and nature of this abnormality in growth. In certain instances, however, no surgical care is needed and the services of the masseur or physical culture teacher are all that are needed.

Considering the environment of children it is by no means strange that many growing children are flat-chested and round shouldered, or that these deformities so often persist. The young child passes rapidly through the quadrupedal and half-erect stage of infancy before the spinal column shapes itself and becomes strong enough to bear the super-imposed weight of the head and trunk without sagging into abnormal curves. Under abnormal conditions, chiefly from inadequacy of muscular and ligamentous strength, abnormal curves develop which may persist if the faulty conditions are not relieved.

Many of these curves correct themselves naturally. The child, under normal conditions, tends to grow to type.

It is important to be able to determine what children are threatened with an increase of these curves and what abnormal conditions should be removed. As many children in civilized communities do not enjoy the free untrammelled life of physical activity proper for normal growth, and spend, in each day of twelve or more waking hours (usually at least six or eight), seated in ill-fitted chairs weakening the back muscles and subjecting the intervertebral ligaments to constant abnormal strain from faulty posture, it

* Read at a meeting of the Surgical Section of the Suffolk District Medical Society.

is not so strange that there are many round-shouldered children as that there are not more.

In addition to this there are the trammels of faulty clothing and the debilitating effect of imperfect hygiene which cannot be disregarded as determining factors.

The physician, asked to give advice, should be able to recognize the most influential of the defective conditions and be able to suggest practical remedies. His judgment will be based upon accurately observed facts indicating whether the curves are increasing or diminishing. As the change is gradual, his memory of the previous condition of the curves alone would furnish unreliable data.

After determining that a case needs treatment, the method most suitable in a given instance must be selected. The question whether in a given case of abnormal curves of the spinal column there is need of exercises to strengthen weak muscles, or in addition, of recumbent rest to remove the weight load of the erect position on a spinal column not strong enough for the erect attitude, is one of judgment based upon a common-sense estimate of the child's strength and condition.

Where exercises for the back and trunk muscles are necessary, they should be simple and of a character that can be performed at home daily and suited to the needs of the individual case. Class exercises a few times a week are neither adequate nor always adapted to the special indications for the development of special muscles or the personal strength of the individual child.

The muscles usually needing strengthening are the long muscles of the back and neck. Sometimes the glutei, the abdominal muscles, need to be strengthened, and often the muscles attaching the scapulae to the trunk. The exercises should be either free or requiring only the simplest of apparatus, dumb-bells, rubber-band exercises or the ordinary weight and pulley machines.

It is not difficult to determine whether a given exercise is suitable by inspecting or palpating the bare back while the patient is exercising. The muscle brought into play can be seen or felt in contraction.

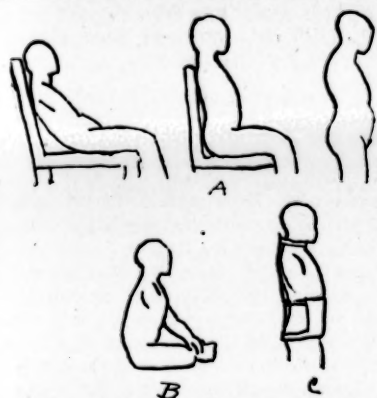
The services of a specially trained attendant are usually not necessary for a properly-trained amenable child, as the exercises should be made intelligible to the mother or an intelligent child's nurse.

Exercises expanding the chest are manifestly beneficial. For this reason, running at play should be encouraged and deep breathing advised as a part of the routine of daily exercise. Creeping on hands and knees may also be prescribed in sagging backs and round shoulders.

The amount of recumbent rest necessary daily for a growing child with inadequately strong spinal column depends not only upon the general condition of the child but upon the degree of curvature, its increase or stationary character while under observation, and the expected rate of growth as determined by the child's age, appearance, and hereditary race and stock predisposition.

Too long recumbency weakens a child's muscular strength and is unhygienic. Daily recumbency as a break in the long-continued back strain between daybreak and dark is beneficial. Flat recumbency or the prone position, however, are usually irksome to a child and enforced idleness is often undesirable. But the inclined position may be made to be of service, meeting the conditions of relief of back strain and yet permitting reading and active use of the hands. For this reason a reclining board, placed upon the bed and raised at one end, is an improvement upon the hard floor advocated by our grandmothers in the treatment of hollow backs and round shoulders in those disciplinary days. The board should be long enough to reach from above the head to below the buttock and should be placed at such a slope as to support the greater part of the weight of the head and trunk and also to permit reading. The board should be narrow, allowing free play of the shoulders. If the patient has a hollow back, the knees should be flexed and supported by a pillow. In the case of a flat back this is unnecessary.

Reclining chairs are not always easily obtainable properly fitted to the size of the child. There is no doubt, however, that the use of such chairs would be beneficial. While it is impossible to avoid the use of ordinary chairs in the daily life of a growing child threatened with round shoulders, their use, especially if high-backed and deep-bottomed, should be as restricted as possible. Ideal conditions for the backs of growing children would be constant, varied activity, especially climbing, arm-hanging, pulling exercises, with prescribed times of rest in the recumbent or prone positions with as



A, Faulty chair attitude and weakened back; B, Floor sitting correcting hollow back attitude; C, Check-rein brace.

little sitting as possible in adult sized seats. The nearer these conditions can be furnished, the better for the backs of children in our communities. Individuals accustomed to carry burdens upon their heads develop poise and a strong erect carriage. For this reason the daily carrying for a definite time upon the head of a pillow or a light sand-bag is advisable to aid the patient to improve in posture.

The physician must bear in mind that in this type of affliction change is slow, as he is dealing with the problem of growth; that constant and reliable notes of progress and change must be made; that properly prescribed daily exercises must be enforced as strictly as a diet for a dyspeptic; that relief from too long downward pressure upon an erect spine is usually needed, and that simple appliance may for a time be necessary.

It is impossible in cases differing as widely as do those affected with this class of deformity to present a statistical statement of results of treatment. So many factors enter into the problem that before and after treatment facts may be misleading. Anyone, however, who has watched carefully for years the growth of a number of children with these deformities will be convinced that there can be no doubt that permanent improvement in figure and carriage in these cases can be brought about by proper direction and management.

It is essential to remember that children with round shoulders should be loosely dressed; they should sit as little as possible in deep-seated or

high-backed chairs; they should play actively and should rest at stated intervals in a reclining or recumbent position; they should perform daily carefully prescribed exercises.

If on account of the threatening character of the curve a spinal support is necessary, it should be effective, light, simple and not unsightly.

Careful tracings should be taken from time to time of the side view cross-section outline of the back and front of the trunk, not including the shoulder blades.

Surgical judgment, trained by the accurate observation of a number of cases, is needed to determine when the curve threatens to become a permanent deformity and what measures are needed to effect permanent correction.

It is not difficult for a thoughtful and observant mother to determine an abnormal stiffness of the spine of a round-shouldered child. The back of a child of ten or younger should be fairly flexible and if the child lies flat upon his back on a hard surface like the floor, there should be little or no space between the spines and the floor except at the neck and a limited region at the end of the spine above the sacrum when the legs are straight. If, however, the thighs are well flexed, normally the lower part of the back can be flattened so as to touch the floor. The chest should be well-rounded and the shoulders drop back to contact with the floor.

Deviation from this standard means an abnormality in curves, varying in importance according to the extent of the variation. The school teacher can easily recognize the weak-backed school child by watching the frequent changes of, or abnormal attitude at his desk.

All exercises and treatment should be of a character as to be applicable for home treatment, as the deformity, being one of growth and not of disease, is correctible only by long continued daily treatment.

An adequately accurate record can be made by means of a tracing rod kept by a flat pencil bearing base plate at right angles to the plane on which the tracing paper is secured—the wall of the room or any even surface. The other end of the rod passes along the line of the vertebral spines behind, and in front along the median line of the chest; and to avoid the scapulae, must be bent to clear the projecting shoulder blades.

In certain cases of threatening and increasing curves, when the patient's strength is not suffi-

cient to justify strenuous exercises and when rapid growth is to be expected, some form of spinal support may be necessary to be worn at times when recumbency or rest of the spinal column as a method of treatment is impossible.

Such appliances are inadequate if they merely hold back the shoulder blades or furnish crutches under the axillae. What is needed is something which will prevent the head from stooping forward, the chest from flattening and, in some cases, the dorso-lumbar spine from forward bending. The apparatus, besides being effective, must be light, easily applied and not unsightly.

Such a "check-rein" brace can be easily furnished by riveting a short cross-piece of flat steeling to an upright long enough to reach from the lower part of the neck to the middle of the sacrum; the cross-piece, long enough to reach from the middle of one scapula to that of another, is attached to the upright a few inches below its top. This cross-shaped appliance is furnished with webbing straps below and a neck band above, and, if at the end of each cross-piece, webbing straps be attached, passing over the shoulders, crossing behind in the back and fastened by buckles secured on a leather piece placed on the abdomen to which the straps at the bottom of the upright are also secured, the patient's shoulders can be pulled back, the protruding abdomen pressed back and the neck and head checked from falling forward, with at the same time a forward pressure exerted by the upright upon the backward curving portion of the spine, requiring a felt pad to prevent chafing.

It is on the judicious and sensible utilization of such practical methods as are possible, applying them as continuously as possible, that the practitioner must rely in guiding the correcting growth which in children tends to grow to normal type if proper conditions exist.

The same means are of service also in young adults in whom osseous changes or too persistent ligaments have not been developed.

The treatment is necessarily tedious, but it need not be burdensome and satisfactory results are obtainable as a reward to painstaking diligence.

ALCOHOL AS A FACTOR IN THE PRODUCTION OF EPILEPSY AND ALLIED CONVULSIVE DISORDERS.

BY D. A. THOM, M.D., PALMER, MASS.,

Pathologist, Monson State Hospital.

[From the wards of the Monson State Hospital.]

ALCOHOL as a factor in the production of epilepsy and allied convulsive disorders may have its origin in either the parents or the patient. I am skeptical only regarding the effect of alcohol when found in the collaterals or grandparents.

The use of alcohol by the parents may occur in any one of the three following ways: first, chronic alcoholism in one or both parents; second, acute intoxication of one or both parents at time of conception; third, the use of alcohol by mother during pregnancy.

Chronic alcoholism in one or both parents is undoubtedly responsible for no small percentage of the hereditary epilepsies; while acute intoxication at time of conception and the use of alcohol by mother during pregnancy would account for but a relatively small percentage; yet, they must be considered in a discussion of this kind.

Dr. Matthew Woods of Philadelphia reported in the *Journal of the American Medical Association*, Vol. LXI, No. 26, 7 cases of epilepsy in children traced to a single intoxication on the part of one or both parents at time of conception, otherwise teetotallers. The cases were outlined so briefly and the impression was given that so much had been taken for granted by the author, that one was inclined to feel that he had been asked to accept much on little evidence. Tredgold states that Demereaux, Dehant and Doison have traced cases of epilepsy to an alcoholic intoxication at time of conception. On the other hand, he goes on to quote Dr. Ireland, who found that in some parts of Scotland, where it was customary for whole villages to get drunk at New Year's time, that it has never been noticed that the resulting children were idiotic. He also mentions that a similar celebration takes place at the end of the fishing season, without noteworthy results.

To my mind the study of a large group of cases, such as came under the observation of Dr. Ireland, is far more convincing than the selection of a few isolated cases here and there and using them to prove the point in mind. Yet the question is by no means settled, and it

will be well to keep it in mind when taking family histories, as one of the possible predisposing factors of epilepsy.

Perhaps the skepticism in my mind may be due to the fact that I have yet to see a case of epilepsy where I believed that an acute alcoholic debauch by the parents (which was not an acute exacerbation of a chronic condition) was its origin.

It is quite conceivable that the use of alcohol by the mother during pregnancy may so effect the development of a growing fetus that a nervous system of impaired durability and stability may result, manifesting itself in epilepsy, feeble-mindedness, or, perhaps, some other neuropathic taint.

The following case which came under the observation of Dr. Tredgold, in which the alcoholism resulted in amentia, offers a good example:

The father was a hard-working industrious man, sound in body and mind, and coming of a healthy and long-lived family; he married the daughter of a small publican, apparently a healthy and happy girl, who used occasionally to serve behind the bar. Shortly after marriage this girl developed an insatiable craving for drink; all the money she could obtain by any pretence whatever went in procuring it. Later, the ornaments and then the furniture of the house were pawned to feed her desires. Ten months after marriage she gave birth to a child, a hydrocephalic idiot; and according to the husband, she had scarcely known a sober moment during the preceding four or five months. Further inquiry showed that this woman's father was also a heavy drinker, but otherwise there was an entire absence of any neuropathic condition in the family.

He goes on to state:—

It may be that the alcoholic taste of the mother was in itself evidence of the neuropathic diathesis, but I cannot help thinking that the child's condition was more largely due to an actual poisoning during its intrauterine existence, and this view seems to be supported by the subsequent history, for the next child that was born, after an interval of nearly two years, was perfectly normal and is now a bright and intelligent boy of eight years; by this time, however, the mother has recovered and had lived a perfectly steady life during the whole of the pregnancy.

A word further might be said regarding

chronic alcoholism and its relation to epilepsy.

The fact that alcohol in the parents was responsible for a certain amount of the epileptic offspring has long since been established, and, in many cases, undoubtedly exaggerated. Dejerine claims that in France over one-half the epilepsy in children is due to alcoholic parents. Stuchlik writes from Bohemia that his study of family histories of 176 epileptics showed alcoholism in one or both parents, 36 per cent.; among the grandparents, 38 per cent. He states further that in 50 per cent. of the cases in which parents were alcoholic, the collaterals and grandparents were healthy. Binzwanger attributes 22 per cent. of the epilepsy in Germany to alcoholism; while, in this country, Spratling, from the Craig Colony, gives 14 per cent. My own tables, compiled from the records of Monson State Hospital, showed that 14.6 per cent. of the cases with heredity may be attributed to alcohol.

To be sure, alcohol was found in other cases, but always associated with some other genetic factor. I am sure that no one in this country who has had very broad experience with epilepsy will agree with Matthew Woods in his claim that alcoholism explains 35 per cent. of the epilepsies. I think that, in this country, between 10 and 15 per cent. of the institutional cases might find their genesis in alcoholic parents, but I should not expect it to be doubled or trebled in France. Carl von A. Schneider, M.D., very aptly states, in his article on "Studies of Alcoholic Hallucinoses, reported in the *Psychiatric Bulletin of the New York State Hospital*, Vol. IX, No. 1, that "Alcohol as an hereditary and etiological factor in the production of insanity has been overrated." I am sure this statement applies to epilepsy as well as insanity. The remaining portion of this paper will consider alcohol solely as an etiological factor; first, by acting directly upon the nervous system usually predisposed by hereditary taints and producing convulsions in a comparatively short time; second, by effecting intermediate changes outside the central nervous system, of which chronic kidney disease and arteriosclerosis are the best examples.

This latter group of cases is too far removed from the province of psychiatry or neurology to be of special interest to us at this time. It may be said, however, that the onset of convulsions in this group is usually late, often occurring in the fifth or sixth decade. Seizures associated with

chronic kidney diseases may occur earlier. They are usually of the grand mal type, are apt to occur in a series, and are not often associated with mental deterioration, many of these cases dying in coma following convulsions. The convulsions associated with arteriosclerotic cases, or more specifically, cerebral endarteritis, do not usually occur in series and are usually associated with dementia. Many of these cases die from cerebral hemorrhage following a convulsion.

I am cognizant of the fact that I am subjecting myself to criticism, perhaps, on the ground that alcohol is not a definitely established factor in the production of either chronic kidney disease or arteriosclerosis, but until we are able to establish a better etiology for a large group of toxic kidneys I am willing to accept the alcoholic origin; and while I am willing to concede that the relation between alcohol and arteriosclerosis is still problematical, I believe it is worthy of consideration. The last group of cases which enters into this discussion are those in which alcohol acts as the exciting factor in the production of the convulsions. In fact, in some of these cases, it appears to be the sole cause.

Notwithstanding the fact that we are often unable to establish any cause for the convulsion other than alcohol, I am strongly of the opinion that in a perfectly stable and well-adjusted nervous system alcohol *per se* is not sufficient to produce convulsions. To be sure, had the patient not indulged in alcohol that factor as an exciting cause would have been removed, and it is fair to assume that the patient would not have suffered from convulsions, unless, perchance, some other extraneous exciting factor were encountered. Yet, as practically all the cases of alcoholic epilepsy occur in men and almost always late enough in life to avoid most of the shoals upon which the predisposed are usually wrecked, we have no reason to doubt the foregoing assumption that the epilepsy in the following cases is justly attributed to alcohol. I will cite, as briefly as possible, 5 cases which divide themselves into two groups:—

1. Cases that have come under institutional care early after the onset of the convulsions (usually within four years).
2. Cases which have had convulsions for several years before coming under institutional care (often over six years).

GROUP I.

W. K. Admitted March 23, 1914. Age thirty-one. Occupation, laborer. Education, first year grammar school.

Family History. Father died at sixty-five of heart failure. Mother died at fifty-one of Bright's disease. Family history otherwise negative.

Personal History. Birth normal. Had scarlet fever at twenty-eight; measles in infancy.

Physical and Neurological Examination. Negative, except for impaired hearing in left ear.

Urinalysis and Wassermann test negative.

Epilepsy. First convulsion at age of thirty-one; duration of epilepsy before admission, four years.

Hospital History. Patient had first convulsion during the fifth month after admission; has had none since July, 1914. He has worked every day since admission to hospital as a painter. His work is efficient, he is trustworthy, shows no evidence of irritability, impulsiveness or violence, and is not demented.

A. L. Admitted Dec. 3, 1913. Age thirty-five. Occupation, salesman. Education, high school.

Family History. Father died of heart trouble at age of sixty-four. Mother is living and well, age, sixty-seven. Two brothers and two sisters living and well. Family history negative.

Personal History. Birth normal. Had scarlet fever at nine years of age.

Urinalysis and Wassermann test negative.

Epilepsy. Began four years previous to admission. Attacks generally occur at night. Patient had always been a heavy drinker, and had been using alcohol to excess just previous to first convulsion.

Hospital History. Patient had three attacks during the first month here; had another attack eleven months later; another five months later, and still another four months later. Has had no seizures for the past six months.

He has worked steadily since admission in kitchen and bakery. His work is efficient, he is even tempered and shows no evidence of dementia. All of the convulsions since admission to the institution have been preceded by drinking sprees, patient leaving the institution grounds without permission, going to town and purchasing liquor.

V. B. Admitted May 2, 1914. Age forty-three. Occupation, laborer.

Family History. Father died from gangrene. Mother alive and well. One sister living and well.

Personal History. Labor normal. Patient had one convulsion during dentition. Had measles and whooping cough; otherwise medical history negative up until onset of convulsions.

Physical and Neurological Examination. Negative.

Urinalysis and Wassermann test negative.

Epilepsy. Patient had first convulsions at tenth month; remission of thirty-eight years, when they began again, always being preceded by alcoholic sprees.

Hospital History. Patient had one convulsion during first month here, then remission for six months; had second convulsion during seventh month, then another remission for six months; then had two convulsions, and has had none since July, 1915. He has worked efficiently about the grounds since admission, and has abstained totally from the use of alcohol. He shows slightly mental deterioration in the form of memory defect.

GROUP II.

J. G. Admitted May 26, 1910. Age forty-five. Occupation, clerk. Education, grammar school.

Family History. Father died at seventy-two of old age; mother died of indigestion at age of seventy. One brother insane.

Personal History. Birth normal. Had measles and whooping cough. Medical history negative until he was twenty-four years old, when he had empyema following pneumonia.

Physical Examination. Negative, except for marked constipation and evidences of arteriosclerosis. Following the death of his mother, four years previous to admission, patient began to drink to excess; as a result, was committed to Foxborough State Hospital. He remained there for a period of two and a half years, and during part of the time he was given slight financial recompense for his services. Grand mal attacks began after the excessive use of alcohol following the death of his mother.

Hospital History. Patient was in the hospital six months without convulsions, left on visit Oct. 20, 1910, remained away until Jan. 24, 1911. He had one convulsion six months after return.

and they have persisted regularly ever since, with a few exceptions. He seldom has more than one grand mal attack, and during this interval has gone seven months without any seizures.

E. H. Admitted June 18, 1909. Age forty-eight. Duration of epilepsy, ten years. Hospital stay, six and one-half years. Heredity.

History of Convulsions. Patient was treated at Bridgewater State Hospital for six months, had three minor attacks during that time. Left June 11, and was seen by a physician June 13, who states he had numerous attacks. Was admitted to Monson State Hospital June 18, 1909, went fifteen months with only one spell, in spite of the fact that during this period he had taken some liquor. During the next sixteen months, with occasional sprees, he had four convulsions. From Aug. 4, 1911, to March 9, 1912, patient was away on a visit. (This was the beginning of his severe and frequent attacks.) Since that time he has accepted every opportunity for liquor and has never gone more than two months without a convulsion and has had as many as five in one month.

The five cases I have used to illustrate the value of early institutional treatment represent only a small percentage of the cases that are under the care of the State, in which alcohol was the exciting cause of the epilepsy. "Rum fits," a term which is so commonly used and often to which so little value is attached, signifies a dormant epilepsy which has been brought out by the use of alcohol, as shown in the cases noted above. The prognosis for those who receive early and proper care is very good, while those cases which fall in Group II are practically hopeless. The therapeutic test is the only one upon which we can absolutely rely. No case of epilepsy should be considered so hopeless as not to warrant the aid of our best skill and endeavors, while every person who gives a history of convulsions, whether in infancy, childhood or adult life, should be considered potentially epileptic and the prognosis made accordingly.

AWARD OF HONORARY DEGREE TO DR. HARVEY CUSHING.—At the Commencement exercises of Yale University, the honorary degree of Doctor of Science was awarded to Dr. Harvey Cushing, professor of surgery at Harvard University.

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A VIGOROUS MEDICAL SEPTUAGENARIAN.

JULY 12, 1849, William Osler first saw the light and has been flooded with it ever since. We are grateful for his birth, for his beneficent life, the current of which still runs strong, deep, and clear. This is no time or place to catalogue his achievements. May that time and place be still far distant. But do we not sometimes make a mistake in putting off until after a man dies a full expression of our estimate of him?

To no member of its body today does the profession of medicine owe so great a debt—not that humanity is not also deeply in his debt. Jenner or Pasteur has his first mortgage on mankind, his second on men of medicine. With Osler the order is reversed. He has made no profound or fundamental discovery; but no one of our day has, in his life, teaching, and example, so radiated, far and near, an inspira-

tion to his fellow physicians. Wide and accurate learning; enthusiasm in the pursuit of truth; a character in which elevation and charm are singularly marked and rarely blended; a personality which wins perforce the love, admiration, and respect of all who come within his influence; a kindly eye which sees the good in every man and thus stimulates him to better it—these are the main threads woven into the fabric of his beautiful life. Who that meets him, who that reads his essays and addresses, in particular, does not come forth or rise with renewed strength and hope to the service of his fellow-man, a better soldier in the medical corps of the Divine army? Who can estimate the number of those relieved in body and consoled in mind by the sane optimism and abounding humanity which permeates his life and teaching? Though the Atlantic lies between him and America now, he never seems far off to us. We congratulate ourselves, William Osler, that you are still with us with your hands firm on the plow, running your furrows straight and deep. Our hearts go out to you on this, your seventieth birthday anniversary.

F. C. S.

MEDICAL NOTES.

THE DOGS' PROTECTION BILL.—It has been reported recently in the *Medical Press* that as a result of a deputation from the Royal Society of Medicine to the Home Office, the British Government has decided to amend the Dogs' Protection Bill, to the effect that whenever an applicant wishes to experiment on a dog he must state on his application that the object of his experiment would be frustrated unless it were performed on a dog. Although this amendment places an additional restriction on research, it will make it possible still to continue medical research.

BRITISH BIRTH AND DEATH RATES.—The last quarterly return shows that during the three months ending December 31, 1918, British population has decreased by 90,130. The number of births amounted to 206,358, and deaths numbered 296,488. Of the death rate, nearly 20 per cent. was stated to be due to influenza. For the three months ending March 31, there was an excess of deaths over births amounting to

47,002. Statistics for the preceding year during January, February, and March show that births exceeded deaths by 24,303. At the present time, the decline is unprecedented, and presents a serious problem to the British nation.

MEDICAL CONGRESS AT ATLANTIC CITY.—The eleventh triennial session of the Congress of American Physicians and Surgeons was held at Atlantic City on June 15. Fourteen other associations met in conjunction with this association, including the American Climatological and Clinical Association, Association of American Physicians, the American Association of Genito-Urinary Surgeons, the American Orthopedic Association, the American Pediatric Society, the American Association of Pathologists and Bacteriologists, the American Ophthalmologists' Society, the American Otolological Society, the American Neurological Association, the American Gynecological Association, the American Dermatological Association, the American Society of Tropical Medicine, the American Laryngological Association, and the American Surgical Association.

Dr. Simon Flexner of New York, president of the Congress, presided at the general meetings. Brig. Gen. John M. T. Finney, chief of the surgical division of the medical department of the A. E. F., delivered an address on "Surgical Aspects of Reconstruction," and Dr. Flexner spoke on "Epidemiology and Recent Epidemics."

APPOINTMENT OF DR. FREDERICK PAUL KEPPEL.—Dr. Frederick Paul Keppel, of New York, has been appointed by the American Red Cross to the office of Director of Foreign Operations. Before the war, Dr. Keppel was engaged in educational work. In 1910, he was elected dean of Columbia College. At the outbreak of the war, he offered his services to the Government, serving first as assistant to the Secretary of War, and later as third assistant secretary, having charge of all matters pertaining to the social and physical well-being of the men of the army. Since 1908 Dr. Keppel has been secretary and editor of the American Association for International Conciliation. In 1911, he was made a Chevalier of the Legion of Honor.

THE GERMAN MEDICAL PROFESSION.—A recent issue of the *Berliner Klinische Wochenschrift* states that there are many physicians in Ger-

many who are unable to find employment. It is among the younger physicians particularly, 5,800 of whom have been graduated during the period of the war, that this situation is most keenly felt. In Austria-Hungary it is said that approximately 700 former military doctors are unemployed, together with 600 or 700 more civilian doctors from German Bohemia and Southern Tyrol, who have been driven to German-Austria because of the creation of national governments. Probably over 1,000 doctors have been left without employment by the political happenings in German-Austria. The outlook for the medical profession in Germany is not improved by the fact that the National Constitutional Convention has approved alterations in the compulsory health insurance regulations which will practically ruin the profession financially, as the fees which doctors receive on behalf of these assured persons amount to about eight cents a visit. It is not improbable that German practitioners may come to this country in large numbers after peace has been signed, unless measures are taken to refuse to issue them license to practice.

AMERICAN CLIMATOLOGICAL AND CLINICAL ASSOCIATION.—The thirty-sixth annual meeting of the American Climatological and Clinical Association was held at Atlantic City on June 14, 16, and 17, 1919, in connection with the 11th Congress of American Physicians and Surgeons. Among the addresses delivered were the following:

President's Address, by Dr. Guy Hinsdale; "An Observation Hospital and Training Center for Tuberculosis," by Major Joseph H. Pratt, M.D.; "The Treatment of Tuberculosis in the Army Hospital," by Lieut. Col. Henry W. Hoagland, M.C., U.S.A.; "The Army Tuberculosis Problem As Seen in Massachusetts," by Dr. John B. Hawes, 2d; "An Analysis of the Examination of over 100,000 Men Examined at Camp Lewis by the Tuberculosis Board, and of 25,000 Soldiers Discharged from Service," by Major Ralph C. Matson; "The Treatment of Tuberculosis in Returned Canadian Troops," by Capt. J. Roddick Byers; "The Acute Respiratory Diseases in the Southwestern Camps," by Major J. N. Hall, M.C., U.S.A.; "The Employment of Ex-Patients in Sanatoria for Tuberculosis," by Dr. Harry L. Barnes; "Clinical Features and Management of Influenza," by Dr.

Carroll E. Edson; "Clinical Observations on the Epidemic of Influenza Occurring in the Naval Hospitals of Philadelphia in the Fall of 1918," by Lieut. Commander Judson Daland; "Personal Hygiene in the Prevention of Influenza and other Infectious Diseases," by Major Thomas Darlington; "Medical Work in the British Army in France," by Major George C. Shattuck.

THE BORDEREL ZANDER TREATMENT.—*The Medical Press* has reported a demonstration of the Borderel Zander treatment, given recently before the Harrogate Medical Society. This treatment was first brought into practice during the war, and is made up of a system of mechanical exercises, combined with electricity and heat. This treatment was installed at the Ripon Camp during the war, but has been removed since to Harrogate for civilian practice. A record of 60,000 men being benefited by the treatment, of whom 64 per cent. were able to return to military duty, gives evidence of its efficacy in treating stiff and painful joints and other disabling conditions.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF BUFFALO.—The forty-fourth annual meeting of the Alumni Association of the Medical Department of the University of Buffalo was held on June 19, 20, and 21, 1919. Experiences were related by alumni of the hospital of their service in the war at Base Hospital 23. Among the interesting addresses which were delivered were the following:

"Study of Infectious Diseases at a Base Hospital," by Major William Vogeler, M.D.; "Method and Application of Transfusion in the A. E. F.," by Major Baldwin Mann, M.D.; "Experiences in a Base Hospital and at the Front," by Major H. W. Titus, M.D.; "Fact and Theory in Practice," by Frederick Peterson, M.D.; "An Effective Treatment for Recurrent, Inoperable, Deep-Seated Carcinoma," by Emil G. Beck, M.D.; "The Therapeutic Use of Digitalis," by Robert L. Levy, M.D.; "The Treatment of Colitis," by Walter A. Bastedo, M.D.; and "Experiences in Spinal Cord Surgery," by Allan B. Kanaval, M.D.

MALARIA IN THE UNITED STATES.—It has been estimated by the United States Public Health Service that over seven million people in the

United States are infected with malaria, and that in the South this disease presents a more serious problem than typhoid fever, tuberculosis, hookworm, and pellagra combined.

HOSPITAL RECONSTRUCTION WORK.—A report of the Division of Physical Reconstruction, Surgeon General's office, states that of the 338,241 wounded soldiers registered at army hospitals which carry on reconstruction and reëducational work, up to April 30, a total number of 192,225, or 65 per cent., had enrolled in the ward, school, or shop classes which were being conducted for their benefit.

INFLUENZA-PNEUMONIA MORTALITY IN ILLINOIS.—During the year 1918 there were 32,324 deaths from influenza-pneumonia in Illinois. This number exceeds by approximately 8,000 the total mortality from communicable disease during an average year.

MORTALITY FROM CANCER.—It has been announced that during 1917, there were in England and Wales 18,145 deaths from cancer among males and 23,013 among females. These figures are the highest yet recorded.

BOSTON AND MASSACHUSETTS.

WEEK'S DEATH RATE IN BOSTON.—During the week ending June 14, 1919, the number of deaths reported was 169 against 216 last year, with a rate of 11.07 against 14.36 last year. There were 22 deaths under one year of age against 34 last year.

The number of cases of principal reportable diseases were: Diphtheria, 40; scarlet fever, 27; measles, 38; whooping cough, 21; typhoid fever, 3; tuberculosis, 43.

Included in the above were the following cases of non-residents: Diphtheria, 5; scarlet fever, 6; typhoid fever, 1; tuberculosis, 1.

Total deaths from these diseases were: Diphtheria, 2; tuberculosis, 17.

Included in the above were the following non-residents: Diphtheria, 1.

Influenza cases, 4; influenza deaths, 1.

During the week ending June 21, the number of deaths reported was 167 against 189 last year, with a rate of 10.94 against 12.57 last year. There were 21 deaths under one year of age against 32 last year.

The number of cases of principal reportable

diseases were: Diphtheria, 43; scarlet fever, 36; measles, 17; whooping cough, 10; tuberculosis, 53.

Included in the above were the following cases of non-residents: Diphtheria, 5; scarlet fever, 3; tuberculosis, 4.

Total deaths from these diseases were: Diphtheria, 3; scarlet fever, 1; whooping cough, 2; tuberculosis, 17.

Influenza cases, 6; influenza deaths, 1.

WORCESTER CITY HOSPITAL.—The fifty-eighth annual report of the City Hospital of Worcester, Massachusetts, summarizes the work of that institution during the past year. The hospital has struggled under the same difficulties that have handicapped all civil hospitals: a somewhat depleted staff, the influenza epidemic, and the high cost of living. 6,411 patients were admitted to the hospital and were given 117,621 days' treatment. 24,819 treatments were given in the out-patient department. The average expenditure for each bed occupied continuously throughout the year was \$830.79, the average cost per patient being \$15.93.

There were admitted to the surgical wards 2,240 patients; to the medical wards, 1,790; children, 773; minor accident cases, 824; maternity patients, 641. The out-patient department cared for 4,630 new patients. The training school for nurses graduated 45 nurses.

NORFOLK STATE HOSPITAL.—The Norfolk State Hospital offers a definite program for the care of drunkards, providing for each type the treatment which is appropriate. The accidental drunkard is released with admonition; the occasional drunkard is placed on probation, and fined on subsequent arrest; curable cases are placed on probation and sent to the State Hospital, worthy but chronic drunkards to a detention colony, and vicious or criminal cases to the State Farm. On May 17, 1918, the hospital was opened for the admission of women.

The Norfolk State Hospital now maintains departments for men, women, and out-patients. On October 1, 1919, the Government assumed charge of the institution. In the future, the hospital will extend its service not only to alcohol and drug inebriates, but will also serve as a reconstruction hospital for the treatment of types of nervous disease for which the State has made no adequate provision heretofore.

There have been admitted during the year 543 cases. Of this number, 484, or 90 per cent., were voluntary, and 59, or 10 per cent., were committed. The percentage of admissions for alcoholism was 67, and for drug addiction, 33 per cent. The daily average number of patients at the hospital has shown a decrease of 78 as compared with the previous year. The hospital now maintains 29 out-patient offices. A new office has been established at Quincy during the year. 2,978 office visits have been made by patients, and there have been 3,780 home visits.

NEW ENGLAND DEACONESS ASSOCIATION.—The twenty-ninth annual report of the New England Deaconess Association reports the development and progress of this institution during recent years. Since 1907, when the "New Hospital" was completed, 13,021 patients, 433 of whom have been ministers or members of their families, have been treated. The sum of \$104,669.00 has been expended in the relief of suffering. Many nurses have been graduated, and are now holding responsible positions in this country and in foreign lands. During twelve years of service, the hospital capacity has been increased from fifty to sixty-seven beds.

The Home in Boston has placed one of its workers in the North Station during the past year. By this means, more than 2,500 travelers have been assisted, and a number of girls have been rescued from lives of degradation. The Industrial Work Department has given instruction to 400 children in sewing, cooking, garment making, basketry, and paper work. Those in charge of the summer work have sent 278 children to the Fresh Air Camp at Haverhill, 242 on day picnics, and have placed a number of others in country homes for two weeks or longer. The Training School for Christian Service graduated fourteen young women in 1918. This school has been able to enlarge its facilities by affiliation with Boston University and Morgan Memorial.

The Deaconess Hospitals in Boston and Concord have had a total number of 2048 patients, and 150 enlisted men have received treatment. Fifty beds were placed at the disposal of the Commanding Officer of the United States Naval Hospital. Twenty-four beds in the Brodbeck Cottage were given over to the Emergency State Board of Health for the treatment of physicians and nurses who had come to Boston from New

York, Philadelphia, and Halifax to help during the influenza epidemic. The X-ray Department has made seven hundred plates for the Medical Department.

The Training School for Nurses has arranged so that in addition to regular class work, the nurses should have a four months' course at Simmons College in anatomy, physiology, chemistry, bacteriology, sanitary science, dietetics, and cooking. Training in obstetrical nursing has been given at the Boston Lying-In Hospital.

PRESENTATION OF HOSPITAL FLAGS TO MASSACHUSETTS GENERAL HOSPITAL.—Base Hospital No. 6 and Army Hospital No. 55 have presented their staff flags to the Massachusetts General Hospital. The ceremony was attended by more than five hundred nurses and doctors. The standards were accepted in behalf of the hospital by Dr. Henry P. Walcott, for many years chairman of the board of trustees of the hospital, who praised the work which has been accomplished by the graduates of this institution during the war.

In an address in which he reviewed the history of the hospital unit, Dr. Frederick A. Washburn, late colonel of Base Hospital No. 6, stated that the alumni of the Massachusetts General Hospital have furnished 238 commissioned officers, 228 women nurses, and 80 male nurses and employees for war service with American and allied armies. The original staff of Base Hospital No. 6 was composed almost entirely of the alumni and staff of this hospital.

Dr. Franklin G. Baleh, late colonel of Army Base Hospital No. 55, presented the flag of the nurses of this hospital to the Massachusetts General Hospital, and paid tribute to the men and women who served under his command.

USE OF INFLUENZA VACCINE AS A PROPHYLACTIC.—In a recent issue of *The Commonwealth*, there is reported an experiment conducted by the Massachusetts State Department of Health in the use of influenza vaccine as a prophylactic. The study involved the vaccination of over six thousand individuals, who represented slightly less than one-half the population of twelve institutions, with a heated suspension of influenza bacilli. Only one of the institutions represented, the Monson State Hos-

pital, proved to be suitable for the experiment. From a study of the conditions in this institution, it was concluded that the heated suspension of influenza bacilli used as a prophylactic vaccine did not prevent influenza, lessen its severity or its complications, and as far as could be determined, resulted in no harmful effects.

MORTALITY RATES IN BROOKLINE.—The mortality rates in Brookline have been unusually low during the past year. There were approximately 500 cases of contagious diseases, chiefly measles and chickenpox, but no deaths except from tuberculosis. There was a total of 383 deaths, 60 of which occurred among persons who were residing in the town temporarily. This gives a death rate of 8.95 per thousand, which is reported to be less than that of any other city or town in the country. There were 40 cases of diphtheria, 59 of scarlet fever, 6 of typhoid, 205 of measles, 67 of whooping cough, 3 of malaria, and 180 of chickenpox. It has been reported by Francis P. Denny, health officer, that diphtheria has been controlled by the administration by local physicians of antitoxin in suspected cases without waiting for the development of cultures. The records of the sanitary inspector show that 2,151 places have been visited during the year.

PARKER HILL HOSPITAL.—It has been announced that the War Department will close the Parker Hill Hospital and transfer the convalescent soldiers now in that institution to other places for treatment. Although the Soldiers' Home and Hospital has been offered for this purpose, it has been refused because the chief reason for abandoning General Hospital No. 10, Parker Hill Hospital, is to make it possible to reduce the number of doctors, nurses, and enlisted men required to care for the patients.

On May 10, there were 683 patients in the hospital. Of this number, 291 will be discharged before the hospital is abandoned. There were 50 amputation cases, which will be sent to the Walter Reed Hospital in Washington, where special facilities exist for treatment and for training in the use of artificial limbs. Three tuberculous patients will be transferred to General Hospital, No. 16, New Haven, which is a tuberculosis hospital. The remaining 238 cases

are general medical and surgical patients, who will be sent to General Hospital No. 30, Plattsburg Barracks, N. Y.

NORTHEASTERN DENTAL ASSOCIATION.—A convention of the Northeastern Dental Association of Massachusetts was held in Swampscott on June 17 and 18. The question of amalgamation with the New Hampshire Dental Association was considered. A motion picture showing the various stages of treatment a patient receives while having teeth extracted was presented by Dr. A. S. Hovey of Lynn, and an address was delivered by Lieutenant Colonel Hugh Cabot on "Doings of the Secret Service During the War." Dr. Anna V. Hughes and some members of the staff of the Forsyth Hygienic Clinic gave a demonstration. The following officers were elected for the coming year:

President, Dr. Robert Farquhar, Lawrence; vice-presidents, Dr. N. E. Davis, Lowell; Dr. Howard Stansfield, Haverhill; Dr. E. W. Marvin, Lynn; Dr. M. E. Davenport, Beverly; secretary, Dr. F. E. Jeffrey, Salem; treasurer, Dr. T. F. Parks, Wakefield; convention manager, Dr. George H. Newell, Salem; directors, Drs. Henry Barry, Salem; Walter M. Brown, Newburyport; William C. Termenbring, Beverly; H. S. Clark, Danvers; W. H. Knight, Salem; B. B. Lasky, Marblehead; J. B. Leonard, Haverhill; James J. McVey, Haverhill; C. W. Partridge, Lawrence; H. A. Haffner, Lawrence; W. H. Pepin, Salem; M. J. Wright, Somerville; M. C. Smith, A. S. Hovey, and Aubrey A. Williams, Lynn, and Henry Yale, Peabody.

HARVARD NECROLOGY.—The Necrology of Harvard University for the past year includes an unusual number of physicians among its older graduates. The class of 1843 of the Medical School is represented by Dr. Kimball Hill and Dr. Edward Philippe Le Prahon. It is believed that Dr. Bertland Francis Bugard of the class of 1839 is deceased, although there has been received no definite information of his death.

HARVARD HONORARY DEGREES.—Among the honorary degrees conferred at the recent Harvard Commencement, those of most interest to the profession are the awards to Herbert Hill White, Major George Cheever Shattuck, Captain Charles Davis Morgan, and Captain Walter Williamson Manton. President Lowell, in con-

ferring the degrees, characterized the recipients in the following terms:

Herbert Hill White, an officer of our Army, our Navy, and the British army; protean in his usefulness during the war; who, as a business manager of the Harvard Surgical Unit with the British forces from June, 1915, until the Armistice, made possible its great achievements.

Major George Cheever Shattuck, one of our younger physicians who devoted himself without stint to the medical service of the war; first in Serbia, to drive out the scourge of typhus fever, and then in the Harvard Surgical Unit until the fighting ceased.

Captain Charles Davis Morgan. Joining the Ambulance in 1914, he volunteered in the English Army in 1915, and, save when thrice in hospital from wounds, served in the hottest fighting of the artillery throughout the war.

Captain Walter Williamson Manton. Advancing as medical officer with his battalion in the attack near Soissons, his arm was rent by a bursting shell; yet until the final objective was reached he attended the wounded and directed their removal to a safety he would not seek himself.

SCHOOL NURSING IN BERKSHIRE COUNTY—

An interesting experiment in school nursing has been made in Berkshire County with notable success. A recent issue of *The Commonwealth*, outlining the work accomplished, indicates the need of greater community interest in the physical requirements of growing children throughout the country.

In December, 1917, funds were provided to finance a county school nurse in towns in Berkshire County where school nurses were unknown. The coöperation of school superintendents and committees, school physicians, teachers, and parents was gratifying. The work was begun in March and continued until the close of school, about July first. During this time, surveys were made in eleven towns, ranging in population from four thousand to less than one hundred. All the schools were visited by the school nurse, and also by the school physician whenever it was possible. The nurse made no attempt to make a positive diagnosis of any obscure ailment; but obvious physical defects were noted and referred to the physician. Copies of physical records were made, parents visited, health leagues organized, health talks on personal hygiene given to pupils, and tooth-brush drills held.

Although the Massachusetts State regulation requires that the school committee of every city and town shall appoint a school physician and shall assign one to each building, in isolated districts similar to the Berkshire towns, this does not provide sufficient medical care. School inspection to be successful must be followed up by a nurse. This survey has demonstrated the need for the rural community of school nursing with adequate follow-up work, provision for dental treatment, and periodic clinics for treatments both medical and surgical.

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STATE DEPARTMENT OF HEALTH OF MASSACHUSETTS.

REGULATIONS GOVERNING APPOINTMENT OF STATE DISTRICT HEALTH OFFICERS AND EPIDEMIOLOGIST.

1. *Grades.* There shall be three grades, viz: A, B, and C.

2. *Officers appointed only to Grade C.* Candidates for these positions, after passing a successful examination, shall be eligible for appointment to Grade C.

3. *Form of application for appointment.* Candidates must make application addressed to the Commissioner of Health, in their own handwriting, asking permission to appear before a Board of Examiners. Candidates shall state their age, date and place of birth, present legal residence, names of colleges or institutions of learning of which they are graduates, date of graduation, and shall furnish testimonials as to their professional experience and moral character.

4. *Age limit.* No candidate will be eligible to appear before a Board of Examiners, whose age is less than twenty-three or more than forty years. Candidates over thirty-five must have had at least three years' experience in public health work.

5. *Professional requirements.* Candidates shall be graduates of an incorporated medical school or shall have at least five years' experience in public health work and sanitary science.

6. *Citizenship.* All candidates must be citizens of the United States and preference in appointment shall be given to residents of Massachusetts.

7. *Physical examination.* Candidates for appointment must pass a satisfactory physical examination before a Board of Examiners.

8. *Board of Examiners.* The Board of Examiners shall consist of three or more members. These members shall be selected by the Commissioner of Health from the Public Health Council or other officials of the State Department of Health.

9. *Scope of examination.* All examinations of candidates shall be conducted by a Board of Examiners and the examination shall include a physical examination and such oral, written, and practical tests as the Board deems necessary in the subjects outlined in the succeeding sections. Experience and fitness shall also be rated by the Board of Examiners.

10. *Subjects for written examination.* All candidates for appointment must pass a satisfactory written examination in Communicable Diseases, Hygiene and Sanitation, Preventive Medicine, Vital Statistics, Pathology, and Bacteriology.

11. *Compensation.* The compensation of District

Health Officers and Epidemiologist shall be as follows: Grade A, \$3500.00; Grade B, \$3000.00; Grade C, \$2500.00.

12. *When promoted.* After three years' satisfactory service in Grade C, an officer is entitled to examination for promotion to Grade B. After five years' satisfactory service in Grade B, an officer is entitled to examination for promotion to Grade A.

13. *Examinations for promotion.* Examinations for promotion shall be conducted by a Board of Examiners, who shall take into account the efficiency record of the candidate as well as his professional and physical fitness. Failing first examination an officer may be given a second examination after one year. Failing two successive examinations, such an officer shall be dropped from the rolls.

14. *Term of office.* A District Health Officer or an Epidemiologist may be removed from office by the Commissioner of Health because of failure to pass two successive examinations for promotion, or because of gross misconduct or inefficiency, but only after the accused officer has been furnished with a copy of the charges made against him and given a hearing thereon by the Public Health Council.

NOTICE OF A COMPETITIVE EXAMINATION FOR QUALIFICATION ON THE ELIGIBLE LIST OF CANDIDATES FOR POSITIONS AS STATE DISTRICT HEALTH OFFICER AND MALE EPIDEMIOLOGIST IN THE SUB-DIVISION OF VENEREAL DISEASES OF THE MASSACHUSETTS STATE DEPARTMENT OF HEALTH.

Although the law leaves the appointment of District Health Officers and the Epidemiologist in the hands of the Commissioner of Health, it is the policy of the State Department of Health to hold competitive examinations as the principal basis for selecting appointees.

On July 14 and 15, 1919, and on subsequent dates to be announced at that time, an examination will be held for the purpose of establishing an eligible list of appointments to positions as State District Health Officers and male Epidemiologist in the Sub-division of Venereal Diseases of the Massachusetts State Department of Health.

A written examination will be held on the above dates in the examination room of the Civil Service Commission, No. 15 State House, Boston. The oral and practical examinations will be held on dates and at places announced at the time of the written examination.

In the immediate future there will be one appointment to the position of State District Health Officer and one to the position of male Epidemiologist in the Sub-division of Venereal Diseases.

Persons possessing the necessary qualifications and desiring to enter the competitive examination of this service are requested to communicate with the State Commissioner of Health, State House, Boston, at once. Upon such written application, a list of rules and regulations governing the appointment and promotion of District Health Officers and Epidemiologist and an application blank will be sent.

Admission to the examination is governed by these regulations. Physical fitness is a necessary prerequisite, but no percentage credits are given on physique. The examination comprises written, oral, and, if feasible, practical tests.

Relative rating on the eligible list is established on the basis of:

a. Previous experience in public health work, both administrative and scientific—maximum, 25 points.

b. Results of oral examination—maximum, 25 points.

c. Results of written examination—maximum, 50 points.

EUGENE R. KELLEY,

July 10, 1919. Commissioner of Health.